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## Decisions Ahead of Time: The Power of Guidelines to Change Opioid Prescribing in Today's World

Maria A. Woodward, MD, MSc - Ann Arbor, Michigan

Jennifer Waljee, MD - Ann Arbor, Michigan

More opioid prescriptions are dispensed in the United States than any other country.<sup>1</sup> Unused pills that linger in medicine cabinets often lead to misuse disorders by patients or others. Ophthalmologists prescribe opioids, but the extent of our prescribing and its effect on communities are unclear. Analyzing a Medicare dataset, Patel and Sternberg<sup>2</sup> showed that ophthalmologists wrote prescriptions for short time durations (mean of 5 days) and in low volumes (mean of 7 prescriptions annually). But when analyzing slightly younger, privately insured patients, Kolomeyer et al<sup>3</sup> found that ophthalmologists' prescribing has risen over time with twice the number of opioid prescriptions written from 2000 to 2014. Younger patients received more prescriptions, perhaps because they underwent more painful operations, such as to treat orbital disorders, traumas, or retinal detachments. Younger but also poor patients are more likely to misuse opioids, even after short-term exposure, so researchers should evaluate the prevalence of opioid use for these at-risk populations.

Physician-based interventions can reduce opioid prescribing after procedures that cause acute pain. Legislation in more than 36 states focuses on provider knowledge and risk awareness. In this issue, Starr et al<sup>4</sup> (see page 1454) advanced our specialty by developing guidelines that clarify the quantity of opioids to prescribe for many ophthalmic surgeries, focused on opioid oral morphine equivalent pill quantities. After implementation, ophthalmologists markedly decreased the volume of prescribed opioids. Short-term use and low pill volumes can help to curb misuse. Also, by focusing on the number of pills, surgeons can tailor pill volumes to the surgery and expected postoperative pain. Prescribing low volumes is essential because excess pills are rarely disposed of properly.<sup>5</sup> More broadly, Starr et al<sup>4</sup> implemented the guidelines with the support of the American Board of Ophthalmology, which provided maintenance of certification credit for all participating ophthalmologists, likely increasing physician engagement.

A critical next step will be to tailor guidelines for at-risk populations. A one-size-fits-all approach typically limits use of guidelines. With advanced statistical methods, researchers could develop opioid misuse risk profiles and recommendations about opioid prescribing tailored to individual patients. These types of methods have guided other medical disciplines, such as tailoring hyperlipidemia medications according to mortality risk. Tailoring could factor a patient's history of prior exposure,

such as use within 6 months or  $\geq 100$  opioid oral morphine equivalents per day. Additionally, a growing population live with opioid misuse disorders and manage their addiction. Guidelines should recommend nonopioid alternatives.

Ultimately, the effectiveness of guidelines will be determined by surveillance work. Do ophthalmologists stick to guidelines or return to former ways after a few bad experiences? What is the effect that new prescribers have on a system? What is the effect when physicians co-manage patients, such as when managing postoperative pain on nights and weekends? Does tailoring improve physician adherence to guidelines and reduce opioid misuse? For example, if or when a fellow transfers from an outside institution, does he bring the culture of opioid prescribing from that institution? Are we asking patients about pain after surgery to evaluate the guidelines? Questions about intervention durability should be performed in a local, systematic, and recurrent fashion, perhaps using a continuous quality improvement strategy.

Strategies to improve opioid prescribing should be adapted to current events. The coronavirus pandemic will affect opioid use and misuse. The nation is under stress. Patients are affected directly and indirectly with less access to health care and less income. Patients cannot access or pay for routine medications and procedures that would otherwise prevent pain. Mental health is likely worse, especially in vulnerable or poor populations. Patients may be sicker when they undergo surgeries, so surgeries may be more painful and require more analgesics afterward. Patients may save the medications in their homes. Prescribers now can provide opioids without a face-to-face encounter and may prescribe more pills. Coronavirus has changed the face of medicine in 2020, but our ability to talk to our patients has not been taken away. We should examine our prescribing and talk to patients about pain and opioids in the context of the present day. We will always have the agency to help our patients, even if providing care remotely. In that vein, we can continue to serve our patients at our best.

## References

1. Burden M, Keniston A, Wallace MA, et al. Opioid utilization and perception of pain control in hospitalized patients: a cross-sectional study of 11 sites in 8 countries. *J Hosp Med.* 2019;14:737–745.

2. Patel S, Sternberg Jr P. Association between opioid prescribing patterns and abuse in ophthalmology. *JAMA Ophthalmol.* 2017;135:1216–1220.
3. Kolomeyer AM, Yu Y, VanderBeek BL. Association of opioids with incisional ocular surgery. *JAMA Ophthalmol.* 2019;137(11):1283–1291.
4. Starr MR, Patel SV, Bartley GB, et al. Impact of standardized prescribing guidelines on postoperative opioid prescriptions after ophthalmic surgery. *Ophthalmology.* 2020;127:1454–1459.
5. Woodward MA, Zhang Y, Tannen B, et al. Association of limiting opioid prescriptions and use of opioids after corneal surgery. *JAMA Ophthalmol.* 2019;138(1):76–80.

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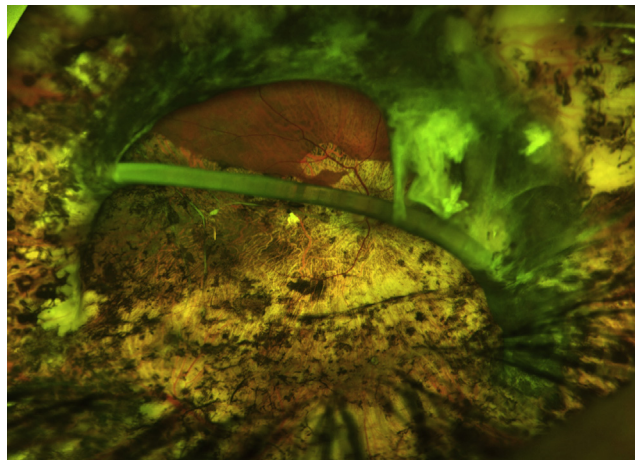
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Correspondence:

Maria A. Woodward, MD, MSc, Department of Ophthalmology and Visual Sciences, W.K. Kellogg Eye Center, University of Michigan, 1000 Wall Street, Ann Arbor, MI 48105. E-mail: [mariawoo@med.umich.edu](mailto:mariawoo@med.umich.edu).

## Pictures & Perspectives



### Intraocular Intrusion of a Scleral Buckle

Scleral erosion and intraocular intrusion of the buckling elements are an uncommon but important complication of scleral buckling. With the use of more tolerable materials to perform scleral buckling and with the increase in vitrectomy, the incidence of this complication has decreased substantially. Risk factors for scleral buckle intrusion include thin sclera, high myopia, glaucoma, extreme scleral buckle tension, and extensive retinopathy. A 76-year-old patient underwent retinal detachment surgery on his right eye in 1987. The wide-field fundus image shows a section of a circumferential buckle band in the vitreous chamber. Visual recovery is not expected, and there are no signs of uveitis or endophthalmitis, so surgical options have been ruled out. (Magnified version of the Figure is available online at [www.aajournal.org](http://www.aajournal.org)).

MONICA GIMENO-CARRERO, MD<sup>1</sup>

ALFREDO INSAUSTI-GARCÍA, MD<sup>2</sup>

JORGE SUAREZ-BARAZA, MD<sup>2</sup>

<sup>1</sup>Ophthalmology Service, University Hospital 12 de Octubre, Madrid, Spain; <sup>2</sup>Vitreous and Retina Unit, Ophthalmology Service, University Hospital 12 de Octubre, Madrid, Spain